# NORTH CAROLINA LAPIDARY SOCIETY

August 1982



#### MEETINGS:

Third Thursday each month. GEMCRAFTERS 2106 Patterson St. Greensboro, NC 27407



MEETING DATE: August 19, 1982

TIME

: 7:30 PM

PLACE

: GEMCRAFTERS

2106 Patterson St.

Greensboro, NC

PROGRAM

: The program at the August meeting will be a working session to assist our Librarian, Roy Greene, to catalog and prepare withdrawal cards on the many books and magazines that have been

donated. COME HELP.

#### OFFICERS 1982

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EXECUTIVE BOARD meets at the call of the president.

MEMBERSHIP DUES : \$12.00 per year - prorated quarterly.

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## FROM THE EDITOR'S DESK

Well, the big "do" in Houston is now history. That was the annual convention of the American Federation of Mineralogical Societies, of course. From all reports the Show was highly successful. Success of the Convention depends on your point of view. Two actions of interest to NCLS members have been reported so far. One of these is of interest to all faceters, not just NCLS.

#### NEW FACETING RULES ADOPTED -

Sweeping changes to the Uniform Rules as regards exhibition and judging of faceted stones were proposed by the Midwest Faceters' Guild and, it is reported that these proposals were adopted by the Uniform Rules Committee. We hope that there will be an official AFMS disclosure of the new Rules in the near future. As far as can be learned to date, no actions were taken on the question of qualifications of faceting judges and the category of workmanship, representing the largest part of the score on a case of faceted stones, remains without definition. If these reports are correct, it seems that non-faceters will continue to judge faceted stones and the workmanship score will continue to be a subjective evaluation. Ah well ...

#### SOUTHEAST MEMBERSHIP APPLICATION REJECTED -

Despite apparent agreement between the Presidents of the SFMS and the EFMLS at their meeting in February, 1982, on the question of boundaries between the two Federations leading to acceptance of the application of SFMS for membership in AFMS, the application was rejected by the AFMS Convention. It is difficult to understand how a blocking action by a small group within the Executive Board of EFMLS can be construed as serving the hobby. At any rate the question for SFMS now must be "What now?" Hopefully this question will be addressed at the next meeting of the Executive Board of SFMS which will be held on September 10 and 11, 1982 at the Evans Appalachian Center for crafts in Smithville, TN (near Cookeville).

#### SFMS CONVENTION AND SHOW -

The Annual Meeting (Convention) and Show of the SFMS will be in St. Petersburg, FL on November 11 - 13, 1982. All activities are to be at the Best Western Skyway Inn. Reservations are \$33.00 per night for a single or double room. Clubs have received show tickets for advance sale with a portion of the sale price being retained by the club. The Grand Prize is a trip for two to Disney World for 4 days and 3 nights.

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### The RHOMBO-FAN Cuts

by Paul C. Smith Indianapolis, IN

On the following pages are two more designs by subscriber Paul C. Smith of Indianapolis, IN. Both of these designs require the use of the 120-tooth index gear and one requires use of the cheater. These cuts are difficult but the results are worth the effort. Cut stones submitted by Paul with the design data will be available at the August meeting. Paul writes;

Here are a couple of facet cuts that should challenge even the experienced faceter to get perfect meets. However, with a precise machine, flat laps, and plenty of patience you should make it okay, and if the meets are not just perfect the light pattern will not suffer much. The light pattern is reminiscent of Gus Mollin's "Opposed Bar Cut" in the way it runs back and forth as the stone is tipped, with the pattern showing as diamonds rather than rectangles.

It would be better to avoid materials with polishing problems, because it is easy to spoil the meets if you overpolish a facet.

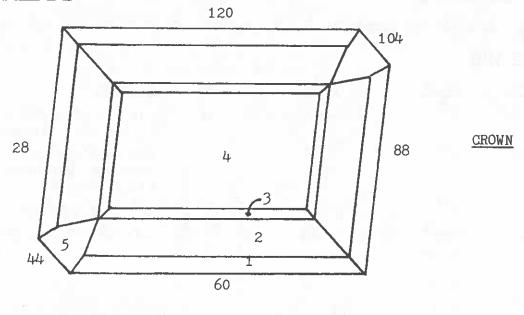
Take extra care to get the right stone proportions when you cut the girdle outline, for good meets depend on it.

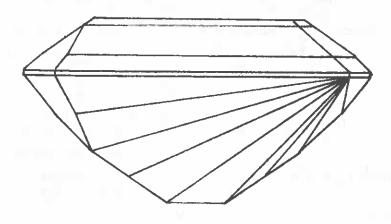
Stone proportions are 3 to 4, measured perpendicular to the stone edges. The distance between cut corners should be 115% of the stone length.

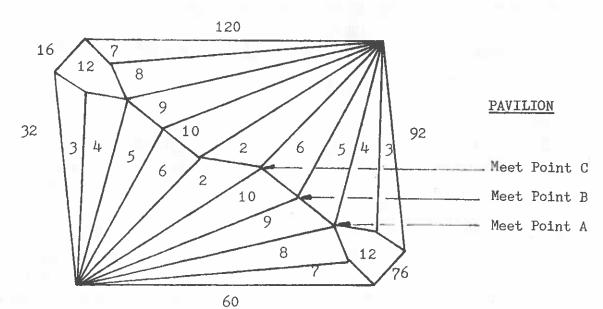
Cut pavilion before crown. Since culet is skewed with respect to the long sides of the gem, transfer dop to a cone dop rather than a Vee dop to avoid twisting during transfer.

\*\*\*<del>\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*</del>

RHOMBO-FAN # 4







RHOMBO-FAN # 4

120 index gear. Angles for spinel.

Preform the girdle at 90° indexing 16-32-60-76-92-120. Establish dimensions.

#### PAVILION

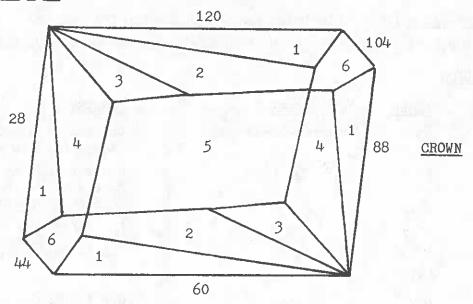
STEP	ANGLE	INDEX	COMMENT
1.	-	2-60-76-92-120	Cut for even girdle line. These facets will be recut later.
2.	41°	57-117	Undercut almost to girdle line. Make sure you have enough mater- ial to meet at culet line.
3.	54°	32-92	Cut to girdle line.
4.	44.8°	33-93	Cut to meet at girdle corner.
5.	41.6°	34-94	tt
6.	39•9°	35-95	<b>11</b>
7.	57.4°	60-120	Cut to girdle line.
8.	48.2 <sup>0</sup> Chea	59-119 t 1° toward 60 & 120.	Cut to meet at girdle corner.
9•	44.7° Chea	59-119 t 1° toward 58 & 118	Cut to meet at girdle corner and Meet Point A.
10.	42.7°	58-118	Cut to meet at girdle corner and Meet Point B.
11.	41 °	57-117	Recut facets of Step 2 to meet at girdle corner and Meet Point C.
12.	47.5° Approx.	16-76	Cut to girdle line and Meet Point A. Some adjustment may be needed.

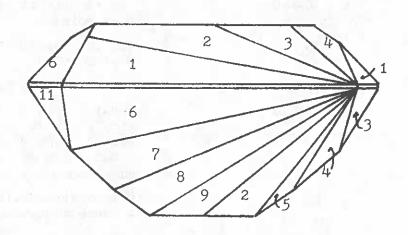
Polish in order of cutting. To eliminate knife-edge culet lines polish on a very fine, worn lap lightly at the following settings.

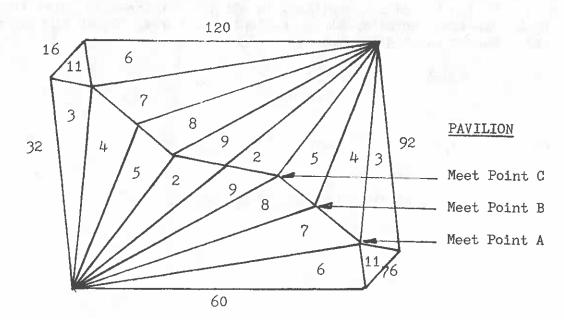
very iii	e, worm rap	, rightery at the rott	owill sectifies.
	ANGLE	INDEX	
	0°	27 or 87	
	26.5° 29.4°	16-76	
	29.4	16-76	
CROWN			
STEP	ANGLE	INDEX	COMMENT
1.	42°	28-60-88-120	Cut to establish even girdle of desired thickness.
2.	36°	28-60-88-120	Cut to reduce facet 1 to desired size.
3.	25 <sup>0</sup>	28-60-88-120	Cut to reduce facet 2 to desired size.
4.	0 <sup>o</sup>	ANY	Cut to reduce facet 3 to size and a table 45 to 50% of width.
5•	38°	44-104	Cut to meet at girdle line and facet 3. Some adjustment may be needed.

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RHOMBO-FAN # 12







RHOMBO-FAN # 12 120 index gear. Angles are for quartz. Preform the girdle at  $90^{\circ}$  indexing 16-32-60-76-92-120. Establish dimensions.

#### PAVILION

STEP ANGLE INDEX COMMENT  1. 65° 16-32-60-76-92-120 Cut for even girdl facets will be rec  2. 40.2° 56-116 Undercut almost to Make sure you have	ut later. girdle line. enough material ine.
facets will be rec 2. 40.2° 56-116 Undercut almost to	ut later. girdle line. enough material ine.
	enough material ine.
to meet at culet 1	
3. 58.8° 32-92 Cut to girdle line	
4. 47.3° 34-94 Cut to meet at gir	dle corner.
5. 43.2° 36-96 "	
6. 54.9° 60-120 Cut to girdle line	: <b>.</b>
7. 47° 59-119 Cut to meet at gir Meet Point A.	dle corner and
8. 43.5° 58-118 Cut to meet at gir Meet Point B.	dle corner and
9. 41.5° 57-117 Cut to meet at gir	dle corner.
10. 40.2° 56-116 Recut facets of St girdle corner and Facets 2 and 9 sho equal width at cul adjustment may be	Meet Point C. ould be of about et line. Some
11. 58.6° 16-76 Cut to girdle line A. Some adjustment	and Meet Point may be necessary.

Polish in order of cutting. To eliminate knife-edge culet lines polish on a very fine, worn lap at the following settings. Polish lightly to avoid chipping stone or gouging the lap.

ANGLE	INDEX
0°	27 or 87
27.2°	16-76
33•3°	16-76

CROWN INSTRUCTIONS ARE ON PAGE 9.

RHOMBO-FAN # 12 - con t.

#### CROWN.

STEP	ANGLE	INDEX	COMMENT
1.	48°	28-60-88-120	Cut to establish even girdle of desired thickness.
2.	39°	01-61	Cut to meet at girdle corner.
3.	36.4°	02-62	Cut to meet at girdle corner.
4.	36°	26-86	Cut to meet at girdle corner.
5.	00	ANY	Cut for table 45 to 50% of width.
6.	43°	44-104	Cut to meet at girdle line and at table. Some adjustment may be necessary.

Polish in order of cutting.

Depth to width ratio is about 80%.

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